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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/418,221	10/14/1999	NAGESH K. MAHANTHAPPA	ONV-043.01(1	8622

28120 7590 03/12/2003

ROPES & GRAY  
ONE INTERNATIONAL PLACE  
BOSTON, MA 02110-2624

EXAMINER

BRANNOCK, MICHAEL T

ART UNIT	PAPER NUMBER
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1646

#24

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Interview Summary

Application No.  
09/418,221

Applicant(s)  
Mahanthappa et al.

Examiner  
Michael Brannock

Art Unit  
1646



All participants (applicant, applicant's representative, PTO personnel):

(1) Michael Brannock

(3) David Halstead

(2) Michelle Rownes

(4) \_\_\_\_\_

Date of Interview Mar 11, 2003

Type: a) ☒ Telephonic      b) ☐ Video Conference  
c) ☐ Personal [copy is given to 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes      e) ☒ No. If yes, brief description:

Claim(s) discussed: all

Identification of prior art discussed:

Pathi et al. and Engber et al.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Examiner maintained that the specification merely invites the artisan to perform random trial and error experimentation to try to find variants that work, if any could be found; and that this experimentation is further complicated by the burdensome assay required to determine function. Discussing Pathi et al. and Engber et al., the examiner maintained that an assay of ptc binding does not appear to be sufficient to use a variant in the method because the closest art of record (Engber) indicates that Sonic and not Desert HH promotes neuronal survival even though the binding properties of SHH and dHH are indistinguishable. Applicant argued that if human and mouse sonic hedgehog were interchangeable in the method, then the method would at least be enabled for methods that involved variants 95% identical to either mouse or human sonic. However both mouse and human SHH are naturally occurring and the specification has not set forth what characteristics are required to construct a protein with the properties of the naturally occurring sonic HH proteins.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) ☒ It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required